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O C=O O
|| | | ||
- C - R¹ - C|
C=O

or mixtures thereof, wherein R¹ is a substituted or unsubstituted acyclic or carbocyclic group and is unsubstituted or is substituted by F, Cl, Br, O, N, P, S, Si or B.

21. (Once amended) The composition of claim 13 for selectively adsorbing a component of a gas mixture, wherein R is a member of group (iv), selected from:

- (a) an alkylammonium or arylammonium cation having having the formula -(R¹R²R³R⁴)N⁺, wherein R¹, R², R³ and R⁴ are the same or different and are hydrogen and at least one of which is an unsubstituted acyclic or carbocyclic group or an acyclic or carbocyclic group substituted by F, Cl, Br, O, N, P, S, Si or B when the TECs are anionic; or
- (b) BF₄-, BOR"-, PF₆-, NO₃-, SO₄², CO₃², MoO₄²-, a polyoxometallate, R"CO₂-, R"O-, R"SO₃-, wherein R" is a C₁₋₂₀ alkyl or an aryl or hetero group having from 4 to 20 carbon atoms, when the TECs are cationic.

REMARKS

New claims 22-27 presented to further define the invention. They are supported on pages 18-19 of the specification. No new matter has been added. Claim 13 has been amended to incorporate Figure 1.

Restriction Requirement

It is noted that a restriction requirement was included in the Office Action, but no election has been made by applicants in this application (nor is an election noted by the Examiner). Further, all claims have been examined. In view of this, applicants assume that the requirement was made in error, and will respond to the rejections of all of the original pending claims 1-21.

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Specification Objecti n:

The specification has been amended in accordance with the Examiner's requirement. It is noted that application Serial No. 08/784,175 was abandoned in favor of Continuation Appln. Serial No. 09/225,052, which issued into US Patent 6,183,709.

Claim Objections:

Claim 1 has been amended to incorporate Figure 1 into the claim.

Claim 12 has been amended to incorporate Figure 3 into the claim.

Claim 21 has been amended to correct its dependency.

Rejections under 35 USC 112:

Claims 1, 8, 12, 13 and 16 have been amended to address the issues raised by the Examiner. No new matter has been introduced and the rejections are requested to be withdrawn.

THE ART REJECTIONS

Claims 1-4 and 13 have been rejected as being anticipated by Dalton et al ("Dalton") or, in the alternative, as being obvious over the combination of Dalton in view of Yaghi.

The remaining claims were rejected over either Dalton alone or Dalton in view of Yaghi further in view of Roman, Norman et al and combinations thereof.

These rejections are respectfully traversed.

With respect to Dalton taken alone, it is noted that the Examiner appears to be arguing that the reference to the use of "appropriate polymer materials" in Col. 5,

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lines 37-40 meets claim limitation (e)(ii) in claims 1 and 13.

Applicants pending claims state that the R group is "multifunctional organic groups forming covalent bonds with one or more of groups G to G_4 ". By definition the claimed R group cannot itself be a polymer because it "forms covalent bonds with one or more of groups G to G_4 ." A polymer is a neutral species and is not capable of forming a covalent bond with another material unless atoms are removed from the polymer. Thus it is submitted that the limitation (e)(ii) of independent claims 1 and 13 is not disclosed in Dalton.

Yaghi is relied upon for meeting the claim limitations of (e) of claims 1 and 13, and of limitation 12(f). It is noted however, that the materials recited in col. 5, lines 7-59 of Yaghi are all templating materials. These templating materials do not become part of the framework of the materials disclosed in Yaghi. As shown in Formula 1 (col. 2, lines 45-55) of Yaghi, the templating agent is encapsulated within the pore of the material, but is not part of the framework of this material. There is simply no teaching to use these templating agents as intermolecular connecting groups let alone any motivation to use these materials as intermolecular connecting groups in for the Dalton materials.

In light of the above, the rejections of the independent claims that rely upon upon Dalton and Yaghi are in error and should be withdrawn.

With respect to the remaining rejections, it is noted that each of these is predicated on the addition of further references to either Dalton or the Dalton/Yaghi combination addressed above. In view of the deficiencies above, it is submitted that the additional rejections are most should be withdrawn as well.

Provisional Double Patenting Rejection

This rejection will be addressed upon the indication of allowable subject matter in either application.

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In light of the above amendments and remarks, reconsideration of the pending application is requested.

Respectfully submitted,

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